

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/762,651
Filing Date: January 22, 2004
Applicant: John Wheat et al.
Group Art Unit: 1745
Examiner: Angela J. Martin
Title: Parallel Stack Antifreeze System
Attorney Docket: 8540G-000242 (General Motors Docket No. GP-303997)

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22314

Pre-Appeal Brief Request for Review

Sir:

In connection with filing the accompanying Notice of Appeal, Applicants request a pre-appeal brief review of the rejections of the final Office Action mailed April 4, 2007.

Claims 1-8 and 17-22 remain pending.

ARGUMENT

1. Neither Kato et al. U.S. Patent Application Publication 2004/0053092 nor Roberts et al. U.S. Patent Application Publication 2001/0055707 anticipates any of Appellants' claims because Appellants claim a system comprising a plurality of fuel cell stacks (see independent claims 1 and 17) while the Kato and Roberts publications disclose and discuss only a single fuel cell stack.

The Kato and Roberts references do not describe or disclose a system with a plurality of fuel cell stacks, but rather describe a system of a *single* fuel cell stack. See Kato, paragraphs [0002] and [0004] (“a fuel cell stack which includes a stacked body consisting of fuel cell units stacked together, and a pair of end plates which together sandwich the stacked body”); Roberts, paragraph [0007]. A plurality of fuel cell stacks (each stack containing a plurality of fuel cells) and a plurality of fuel cells are not the same thing. “[A]nticipation requires the disclosure in a prior art reference of each and every element as set forth in the claim.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d (BNA) 1081, 1087 (Fed. Cir. 1986).

The Kato publication describes a single fuel cell stack, see Fig. 1 and paragraph [0010], while the system of the present claims have an element of a plurality of fuel cell stacks connected in parallel. The final Office Action alleges that Fig. 1 shows “a plurality of fuel cell stacks connected in parallel,” page 2 of the Office Action, but it does not; rather, Fig. 1 shows one fuel stack with a plurality of fuel cells. Paragraph 41 states, “FIG. 1 is a schematic diagram showing the general structure of a control apparatus for *a fuel cell stack* *A fuel cell stack 1* . . . has a stacked body 3 which is formed . . . by stacking a plurality of fuel cell units 2 together” (emphasis added). *A fuel cell stack. One fuel cell stack. One fuel cell stack 1.*

The Roberts publication also describes a single fuel cell stack. See Fig. 3 (box 210 in the center labeled “FUEL CELL STACK”); paragraph [0013] (“an electric power generation system is provided that includes a fuel cell stack”); paragraph [0018] (“an electric power generation system comprises a fuel cell stack”); paragraph [0037] (in FIG. 2 “fuel cell stack 100 includes a plurality of fuel cell assemblies”); paragraph [0041] (FIG.3 has “a fuel cell stack 210”).

2. The Kato and Roberts references thus also do not, and cannot, describe or disclose a relationship between a plurality of fuel cell stacks, such as their being connected in parallel as in Appellants’ claims. Therefore, each rejection for anticipation also fails because the claim element of fuel cell stacks connected in parallel (see independent claims1 and 17) is absent in both references.

3. The rejections for anticipation also fail because neither of the Kato and Roberts references describes or discloses Appellants’ claimed relationship between the elements of controller, first group of fuel cell stacks, and second group of fuel cell stacks.

Specifically, each of independent claims 1 and 17 has a controller that operates differently on the first group of fuel cell stacks and second group of fuel cell stacks -- deactivates a first group of fuel cell stacks and maintains operation of a second group of fuel cell stacks.

The Office Action cites Kato, abstract and paragraph 0010 and Roberts, abstract and paragraphs 0015 and 0020 for this feature, but Appellants do not find any language in these passages suggesting such a relationship.

Appellants respectfully refer to the Response filed June 8, 2007 for further discussion of further claim elements not disclosed in the Kato or Roberts publications.

4. The Examiner's Response to Appellants' arguments is an admission that the Kato and Roberts references do not anticipate the present claims.

Appellants argued that the controller of the claimed system operates differently than the Kato or the Roberts controllers. The Examiner responded on page 7 of the Office Action that the controllers of the Kato and Roberts publications “can be programmed or adapted” or “would take minimal manipulation,” to function as in Appellants’ invention. But if the cited art’s controllers must be *modified* or *changed*, or (to use the Examiner’s words) adaptation or manipulation is needed to arrive at what Appellants claim, then the references do not anticipate the claim.

"[A]nticipation requires the disclosure in a prior art reference of each and every element as set forth in the claim." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d (BNA) 1081, 1087 (Fed. Cir. 1986). It isn't sufficient for anticipation that the Kato publication discloses a controller, if that controller does not function in the Kato assembly, or interact with the other Kato elements, in the same way as in Appellants' claimed system.

In addition, unless there is some apparent reason to make the adaptation or manipulation to provide the missing function or interaction, the claims are not obvious from the prior art, either. *KSR Int'l Co. v. Teleflex Inc.*, 500 U.S. ___, ___ (2007) (slip op. at 14). Unlike “a combination which only unites old elements with no change in their respective functions,” *id.* (slip op. at 12), the elements of the present system work “together in an unexpected and fruitful manner,” *id.*, which makes their design not obvious.

5. Claims 7 and 8 are not obvious from the Kato publication and claim 22 is not obvious from the Roberts publication because the Kato and Roberts publications do not disclose or suggest the claim elements discussed above.

Again, the Appellants refer to the Response filed June 8, 2007 for further discussion.

Conclusion

For these reasons, Appellants believe claims 1-8 and 17-22 are patentable. Thus, prompt and favorable consideration is respectfully requested. If personal communication will expedite prosecution of this application, please telephone the undersigned at (248) 641-1220 (direct line).

Respectfully submitted,



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September 21, 2007
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